

A new kind of doctor¹

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In 1971 Cochrane published the first and best of a series of papers by various authors presenting fundamental criticisms of the theory, practice, and profession of contemporary medicine, which I shall call the 'radical critique'. Common to all of them are the following beliefs: (1) That medical care has contributed little to improvements in health or expectation of life, compared with the contributions of nutrition, education, and conditions of life and work. (2) That we have expected too much from attempts to restore health by surgical or biochemical excision or substitution, which now incur increasing costs for diminishing returns. (3) That personal medical care should therefore return to a more modest role in curing seldom, relieving often, and comforting always. The authors differ in their assessment of the potential medical role in prevention, but none appear to see this as a substantial alternative employment for medical workers.

The radical critique is based on a large body of empirical evidence developed within medical science itself, derived particularly from epidemiology. Unlike the views of such illustrious predecessors as George Bernard Shaw, it shows little respect for fringe-medicine or faddism, and must be taken seriously. It cannot be dismissed merely because of the showmanship of Illich, or the mediocrity of the 1980 Reith lectures (Kennedy 1981). At its best (Cochrane 1971, 1978, 1979, McKeown 1979, Powles 1973, Fuchs 1974) it poses questions which, if not effectively answered, may discourage support for public medical services, and encourage reversion to unplanned medical care in an open market, fuelled by greed and fear. This was certainly not the intention of its authors, all of whom, except Illich, have been supporters of a National Health Service (NHS) and opponents of marketed medical care; but, because they have not given us any new social policy, the radical critique has led to abdication, disarming those who might best have defended our Health Service had they retained more confidence in the value of their own work.

Authors of the radical critique have one failure in common; not one of them has been in clinical practice during the last twenty years. This remoteness may have assisted their objectivity, but it has made them less aware of the possibilities latent in our present everyday practice.

The limits of professionalism

If positive answers to the radical critique are to be found only beyond the present limits of professionalism, we should look at what those limits are. Traditionally the central task of doctors has been to respond to the complaints of individual patients suffering from disease, or the fear of disease. The profession has a minority of doctors who seek to conserve health in populations rather than restore it in sick individuals; but they are at the periphery, and have never been encouraged to combine the functions of prevention and cure. Doctors think of themselves as practical men who pretend no philosophy but common sense, but in fact their acceptance of this essentially passive social role has led and is still leading to failure to apply the effective medical science we already have to a large part of the sick population, to say nothing of those who are well.

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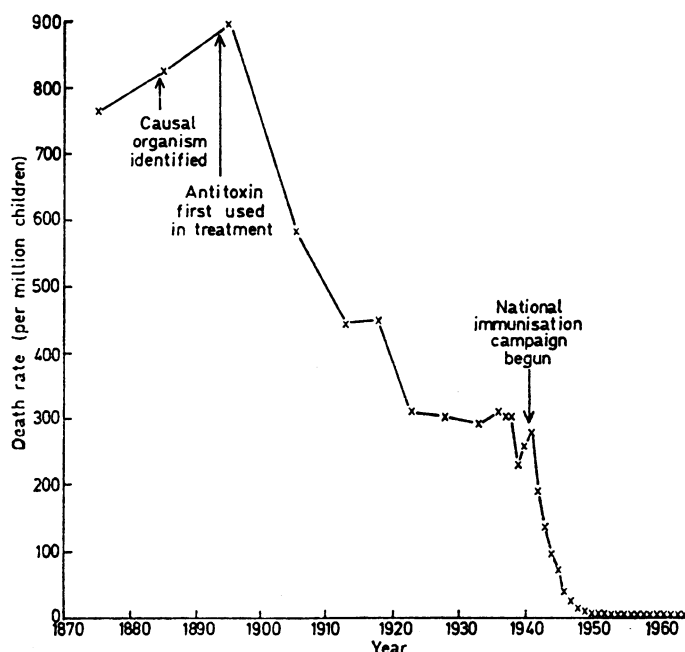


Figure 1. Diphtheria. Mean annual death rate of children under 15: England and Wales. (Reproduced from McKeown & Lowe 1974, by kind permission)

McKeown (1979) refers to diphtheria death rates without apparently appreciating the chief significance of the evidence he cites. Figure 1 shows deaths from diphtheria from 1875 to 1960, indicating three turning points in the history of this disease: identification of the causal organism in 1883, introduction of antitoxin for treatment in 1895, and the beginning of the national immunization campaign in 1942.

McKeown does not refer to the discovery of effective immunization by von Behring in 1913, advocated for universal use by the Chief Medical Officer of the Ministry of Health in his report of 1922, and again advocated in a report by the Medical Research Council in 1927. The MRC concluded that diphtheria toxoid was effective beyond reasonable doubt, that no further evidence was required, and urged all Local Authorities to start mass immunization campaigns. Rhetoric continued throughout the 1920s and 1930s, but few such campaigns were undertaken. From 1922 to 1940 about 3000 children a year continued to die from this wholly preventable disease, because the main thrust of medical effort was directed to individually presented symptoms: early diagnosis by throat swabs, treatment with antitoxin, admission to diphtheria wards of hospitals, and emergency tracheostomy. By heroic cures, our profession distracted both its own and the public's attention from its failure to prevent, while at the same time claiming that immunization was a medical procedure, and therefore the concern only of our autonomous profession. Not for the last time, we claimed as our own, territory we were unable or unwilling to occupy.

Medical science un-applied: the rule of halves

Since the Second World War, chronic disease has replaced acute illness as the main content of care. Population-based data are available for several major chronic conditions, from which we may estimate the extent to which what is known is actually applied. I take my evidence from four examples: hypertension, diabetes, epilepsy, and lower respiratory tract disease.

Hypertension

Since the reports of the Veterans Administration in 1967, it has been known that at diastolic

pressures sustained ≥ 105 mmHg (Phase 5), and at systolic pressures sustained ≥ 180 mmHg, control of high blood pressure saves lives and must be regarded as mandatory. Table 1 shows the proportion of hypertensives above these thresholds in three populations, who have actually had any treatment; in nearly every case it is less, and in most very much less, than half of those in need.

This is what has come to be known as the Rule of Halves; half of those with blood pressure in the range mandatory for treatment are not known, half of those known are not treated, and half of those treated are not controlled. Analysis of records from 38 British general practices showed that blood pressure had not been recorded at all during the previous 10 years in 53% of men in their forties (Fleming & Laurence 1981). This pattern is changing, particularly in the USA (Hypertension Detection and Follow-up Program 1977), as doctors come to understand that what they are dealing with is not a symptomatic disease ascertainable by response to presented complaint, but an asymptomatic risk factor in otherwise completely normal people, the control of which can prevent disease. The pattern changes to the extent that doctors shift their work from passive symptom-response to active health conservation. For a very rich country, like the USA, it is possible to attempt this on a completely personal basis, by selling the various elements of health conservation (including blood pressure control) as commodities in a free market. The cost this way is extravagant, because there are powerful incentives inflating medical activity beyond the evidence of its effectiveness, and it leaves a large minority of the population who are medically unprofitable without effective care. For the rest of the world such a wasteful and still incomplete solution is not even feasible. If we are serious about controlling hypertension, or any other chronic condition in which needs correlate poorly with symptoms, on the mass scale required, we must move decisively from our traditional role as shopkeepers passively responding to sick customers, to become active guardians of the health of our registered populations.

Diabetes

For diabetes, there are few studies on valid samples of the general population to give us evidence of the extent to which people cope without medical assistance, beyond repeat prescriptions, usually obtained from a receptionist. Such evidence as we have comes chiefly from practice audits. Doney (1976), studying a group practice with over 20000 patients, found that 21% of the known diabetics were being supervised by their GPs, 24% were attending hospital clinics, 3% were receiving shared care from both, and the remaining 52% were not getting supervision from anyone. Those with supervision did not differ from those without, in the severity of their diabetes. Studies of populations totalling 21000 in Central London (Yudkin *et al.* 1980) showed that 46% of the known diabetics were attending hospitals. There was no information on the quantity or quality of primary care, but 40% of all diabetics had

Table 1. Proportions of hypertensives ever treated, in three randomly-sampled screened populations

Hypertension defined as:	Source	Proportion of cases ever treated		Age group
Diastolic pressure ≥ 110 mmHg	South Wales 1971 (Miall & Chinn 1974)	Men	25%	35-64
		Women	44%	
	Australia 1971-2 (Lovell & Prineas 1974)	Men & Women }	11%	50-59
Systolic pressure ≥ 200 mmHg	Framingham, USA 1975 (Kannel 1976)	Men	40%	35-44
		Women	63%	
		Men	28%	45-54
		Women	53%	
		Men	37%	55-64
		Women	40%	

had no retinal examinations during the previous two years, and over half had evidence of blood glucose levels sustained above the threshold for microvascular complications. Wilkes & Lawton (1980) studied 530 diabetics three years after discharge from a hospital clinic to care by their own GPs, who had previously agreed to accept responsibility. Of 42 diabetics under 50 years of age, 20 were being seen frequently or regularly by their GPs, 13 were being seen occasionally, and 9 had not been seen at all over the three years since the scheme began. Of a subsample interviewed, 43% were not testing their urine, and 26% had not seen their GP during the previous year.

Experiences like this lead to the common belief that about 90% of known diabetics should receive their principal care from hospital clinics, with GPs supplying only repeat prescriptions, initial care of diabetic emergencies, and initial response to other intercurrent disease. In practice no hospital anywhere can cope with this caseload (from 1% to 2% of the population), and the patients who continue to attend hospital clinics are probably selected more for compliance than for their need for specialist supervision. They are generally subjected to a rapid, impersonal, conveyor-belt style of care, but at least this usually (though not always) includes regular screening for retinal damage. GP care is generally unplanned and rarely includes retinoscopy. Control of associated risk factors, such as smoking and hypertension, is probably poor for both GP and hospital cases. Sönksen (Sönksen *et al.* 1978) has shown that the prerequisite for high quality control of diabetes is education of patients in the nature of their disease, and that this normally requires a total of four hours of learning. Our professional traditions have led to liberal prescription of antidiabetic drugs, often of doubtful value, but only to perfunctory assertion rather than these hours of necessary teaching. Chiefly through its accelerating effect on coronary disease, diabetes of all grades is a major cause of death. In these terms, it is grossly under-diagnosed, and even for insulin-dependent cases, which are fully known, control and supervision probably reach no more than 50% of requirement.

Epilepsy

Evidence from population studies of the primary and hospital care of epilepsy also shows grossly deficient application of existing knowledge. Hopkins & Scambler (1977) studied 94 known epileptics aged 16 or over from a total population of 42339 registered with 17 GPs. They found that although 80% had been correctly diagnosed by GPs, 95% were referred to specialists. Both referral and much hospital investigation appeared ritualistic rather than effective. Only 11% were being followed up by a hospital, and of the others, 15% had not seen their GP during the previous year. Half those with frequent seizures were on inappropriate medication. The authors concluded that 'continuing medical supervision seems random – half of the few still attending hospital clinics have rare seizures, whilst some of those with very frequent seizures do not see even their GP for months at a time . . . medical supervision is not related to need.' Jones (1980) studied 47 known epileptics in a practice of 8607, all managed by GPs. Of 17 patients with problems, 9 were having no regular follow up. Of the whole group, 9% showed clear evidence of drug overdosage. Measurement of serum levels of drugs showed that 70% needed adjustment of dosage.

Lower respiratory tract disease

Management of lower respiratory tract disease is perhaps the worst example of medical custom unrelated to medical science. Death rates from bronchitis and emphysema are directly proportional to the number of cigarettes smoked, and reduced pollution since the Clean Air Act now leaves this as the principal initiating and continuing cause of chronic bronchitis, and the sole cause of severe disability in nearly all cases of emphysema (Royal College of Physicians 1977, *British Medical Journal* 1980). Antibiotics, either continuously or for acute exacerbations, have no effect on the rate of deterioration of lung function (Medical Research Council 1966), expectorant medicines have no measurable effects of any kind, and bronchodilators are effective only in cases with underlying asthma; yet such prescriptions

have been the chief therapeutic activity of GPs for this common and eventually disabling condition. Smoking is the principal cause, stopping smoking the only way of halting its progression, and action on smoking is clearly the most useful task we can undertake.

There is little evidence on the extent to which GPs record smoking habits, either qualitatively or quantitatively, and none at all on how much time they devote to counselling smokers. Audits of records from 38 practices (Fleming & Lawrence 1981) showed that information on smoking habit over the previous 10 years was available in only 23% of sampled medical records for patients aged 20–59. Absence of a written record does not necessarily mean that no advice has been given, but considering the evidence we have had for many years that cigarette smoking is the greatest single avoidable cause of impairment and early death, the extent to which this has penetrated clinical behaviour is astonishingly small.

A ready excuse for this is the assumption that advice from GPs makes no difference. If advice is tossed at the patient as a perfunctory admonition, perhaps this is true; but even if GPs give only brief advice to all patients consulting, 5% of smokers stop smoking for a year or more, and this procedure alone would yield more than half a million ex-smokers a year (Russell *et al.* 1979). A more complex approach, including personalized risk profiles, has not yet been assessed. Though smoking in the long run must be eliminated rather than controlled, there are very big differences in personal risk which, if measured individually, might motivate people to change their behaviour more effectively than indiscriminate exhortation. Not only are there big individual differences in risk for ischaemic heart disease, but smokers can be segregated into those who quickly develop airways obstruction, and those who do not (Fletcher & Peto 1977). We are only beginning to define and to learn the skills needed to help our patients to modify their behaviour. Obviously, like any other effective procedure, this cannot be done without time and resources; but the principal obstacle to progress has been our uncritical priority for salvage, however costly or unlikely to succeed, combined with refusal to accept more than token responsibility for either personalized or group patient education.

The Medical Services Study Group of the Royal College of Physicians (Whitfield 1981) studied 1136 deaths in hospital, under 50 years of age in 1977–79. Of the 262 fatal cancers, 24% were in the respiratory tract, almost entirely associated with cigarette smoking; and of the 168 deaths from myocardial infarction, 80% were associated with heavy smoking. Of the 105 deaths related to hypertension, in 27% the hypertension was unrecognized before the onset of a fatal complication, in 20% it had been recognized but not treated, and in 51% it had been treated but not controlled; in only 2% had it been recognized, treated, and controlled. All these are failures to apply knowledge we already have. I suggest that the principal reasons for this are the ambiguous division of responsibilities between primary and referred care, often leading to lapse from any effective help or supervision, and the reliance of GPs on passive response to individually pressed complaint, rather than active, systematic search and follow up. Neither GPs nor specialists are making and maintaining effective contact with the population at risk.

The shopkeeping inheritance

Like it or not, the working tradition from which general practice stems is the local sick shop, wherein the doctor, thinly disguised as a scientific gentleman, remains a shopkeeper. His contact with the population at risk is limited to occasions of health breakdown. The generally miserable, threadbare 'surgeries', far from inviting customers, silently reproach them for bothering their overworked and under-equipped doctors. All this is the polar opposite of the hard-selling, extravagantly procedural medicine of Continental Europe and the United States, where each consultation and every medical activity (except teaching and listening) sets the till ringing. Clinical activism in Continental Europe and America generates fees; in the UK it generates taxes. Perhaps this underlies our national tradition of sceptical passivity, compared with the uncritical enthusiasm of the world medical market.

We need the scepticism but we should discard the passivity. Medical science, and the clinical medicine derived from it, have not failed: they have simply never been applied rationally. This failure cannot be overcome by putting more people and more money into the social machinery we already have. We need a new kind of doctor, with new functions, within a new structure.

Origins of modern medical professionalism

The currently accepted model of what a good doctor is became fully developed around the start of the 20th century. It is most easily dated in the United States at 1910, when the implementation of the Flexner Report (1910) on medical education, drawing on British, German and French experience, elaborated an international professional model which in its essentials persists today. Until the close of the 19th century the social standing of the medical profession as a whole was precarious; for example, Queen Victoria could not bring herself to present personally a Victoria Cross to Surgeon Major Reynolds after the battle of Rorke's Drift, and it was not until 1891 that doctors in the army were officially recognized as gentlemen (Cantlie 1974). A large part of professionalization of medicine was a search for higher social status, by identifying the general run of doctors with the wealthy minority serving the aristocracy and dominating the teaching hospitals. Flexner added enormous power to this upward movement in social rank. He defined the doctor as a science-based, autonomous professional, relating to society through intimate, individual contacts, whose principal task was the relief of sickness as it came to his door. He was paid by fees for care of the rich and by charity for care of the poor; either way, the doctor derived authority from his associations with science and with gentlemen¹.

Sir William Osler was the most influential example of, and advocate for, this professional model. His advice to students at Yale in 1913 typifies the vigorous, hugely productive philistinism of the times: 'the way of life that I preach is a habit to be acquired gradually by long and steady repetition. It is the practice of living for the day only, and for the day's work, life in day-tight compartments . . . Shut out the yesterdays, which have lighted fools the way to dusty death, and have no concern for you personally, that is, consciously. They are there alright, working daily in us, but so are our livers and our stomachs. And the past in its unconscious action on our lives, should bother us a little as they do . . . Shut off the future as tightly as the past . . . The future is today – there is no tomorrow! The day of a man's salvation is now – the life of the present, of today, lived earnestly, intently, without a forward-looking thought, is the only insurance for the future. Let the limit of your horizon be a twenty-four-hour circle.' (Osler 1913). The new doctors needed no understanding of the anatomy or physiology of society, nor of the social history of medicine, for these might impede their acquisition of the limitless facts of medical science. In the same way, when dealing with one patient, all others were excluded from view; 'patient-tight compartments'. The only way to get on with good clinical medicine was to exclude all demands other than those of the case in hand and give it total priority. This model of care, impossible in all normal circumstances of practice, was and still is that taught in teaching hospitals.

The way doctors (and their public) still like to think of themselves is shown in Luke Fildes' famous picture exhibited at the Royal Academy in 1891, of which over a million reproductions were sold. The doctor sits in a labourer's cottage, beside a child with pneumonia, watched by the parents. He stares pensively at the child, willing it to survive the crisis. A bottle of medicine stands on the table, but hope centres on the presence of the doctor. He is a man of dignity and education, not too grand to be accessible to the deserving poor, but with wisdom beyond their understanding. In fact, he was unable to influence the course of illness (the painting was prompted by Fildes' experience of the death of his own child) but he had the moral qualities that doctors would later need, when medical science had developed

¹In fact (like Allbutt and most great medical men) Osler was very conscious of the logical primacy of prevention: but, willy nilly, he was conscripted to primacy of cure, because he conceived of none but the existing structure of care. This view is implicit in Cushing's (1925) biography.

effective weapons. The moral authority of Fildes' picture was incorporated into the Oslerian model of the clinical scientist.

There are two kinds of truth in this sentimental and idealized picture. First, the GPs of the time really did sit through the night with cases of pneumonia. Doctors worked incredibly hard, at the cost of their own health, to maintain the illusions they were paid to provide; partly because there was ruthless competition and most lived close to poverty, but also because their experience taught them compassion, and illusion was almost the only comfort they could give. Secondly, it expresses the fact that response to acute illness was seen by everyone as the heart of medical practice. Both doctor and parents knew that good food, a dry, warm house, and education in the elementary requirements of healthy living, could reduce susceptibility to pneumonia and make survival of an attack more likely; but both patient and doctor were by circumstances compelled to ignore that knowledge, and to put their faith in futile attempts to defy consequences rather than attend to causes. Up to the end of the 19th century, doctors were as socially necessary, but as biologically ineffective, as parsons or undertakers. They helped people to tolerate an intolerably sad world, by sustaining hope, and by demonstrating that everything had been done that could be done. When the form and content of our professionalism were defined, medical practice was a world of illusion, and the doctor's function was more social than biological. Science was only beginning to have any positive impact of the outcome of illness. It was important more as a guarantee of the future, which already endorsed medicine and made it more credible than religion as a legitimiser of the framework of society as a whole. Science was not, and to a large extent is not, the basis for everyday medical care.

Doctors and the State

The scientific content of medical professionalism was exaggerated, because it reinforced the Oslerian model. The social content of doctoring was minimized, ignored, or sentimentalized as the concern of propertied society for the sick poor, for this was the only interpretation compatible with the Oslerian professional gentleman, but he collided with social reality as soon as he was born. Through the Insurance Act of 1911, Lloyd George required doctors to control the prescription of money to wage earners during acute illness, to prevent their families from sinking into pauperism. He sought to break the chain of poverty causing disease causing poverty. The Act broadened the scope of effective medical intervention in the course of illness, and increased and stabilized the incomes of GPs serving the industrial working class, but the profession bitterly opposed it. The same hostility exploded again in 1948, when the National Health Service Act threatened to increase and stabilize GPs' incomes by including the whole population, and to enlarge their scope for effective intervention by making all treatment free at the time of use. Both in 1912 and in 1948 the GPs capitulated and joined the service; this was seen and felt as an ideological defeat for the profession, and a setback for good clinical medicine, rather than a victory for rational care.

Both in 1912 and in 1948, opposition was based on the social assumptions of Oslerian professionalism. Writing to *The Times* on the eve of the Insurance Act, Sir Clifford Allbutt (1912) accused Lloyd George of basing his Insurance Bill only on 'a notion built of some vague knowledge of village clubs', and of ignoring the needs of scientific clinical medicine; '... the younger men who are passing from the Universities in these years are entering upon medicine as into a new calling, with new ideas and with changed views of their portion in it. . . they are missionaries, carrying with them these new ideas of medicine, and developing new modes of practice. With these men, if not discouraged, lies the future of medicine in its popular sense; and they have chosen medicine as a calling chiefly because of its new scientific values, and of its enormously increasing power over disease. . . [the GP] can examine the blood, counting and comparing its corpuscles; he can perform the ordinary bacterial examinations; he can estimate the chemical values of secretions and excretions; he is skilled in the use of instruments of precision, of blood pressure gauges, endoscopes for the eye, the larynx and other internal parts. . . Now if we are to say that the general practitioner is to be

but a stop-gap, and that every malady of importance is to be sent to some central institution, is not this to take the heart out of our very efficient students, and to degrade the career of medicine? Gloss it as we may, contract practice will stand lower in public esteem, and will be of lower average efficiency and much less humane; it will damp the aspirations and blot the high-minded ideals with which I, who know, say that the young physicians of today are entering our profession; and it will push them back to old-fashioned routine and to ill-remunerated and therefore undervalued service . . . It must be admitted that, where clubs made the bulk of a practice, it was very perfunctory work, and fell into the hands of perfunctory men . . . The solution is no contract, but payment for work done on a standard tariff.' Geiringer (1959) described the 'decapitation of general practice' by the NHS in the same terms: ' . . . payment by capitation must encourage [GPs] to do less and less for more and more patients . . . The utility practitioner . . . shorn of "frills and fancies", eschewing unremunerative responsibilities as far as possible. Within these narrow limits he is competent but rarely happy. Together with his skill he has had to jettison most of the fascination of the exercise of general medicine. His relationship with his patients is superficial and discontinuous and therefore poor in human satisfaction, and he plays second fiddle to his colleagues in the hospital service . . . The real tragedy of the present situation lies in the relentless process of passive hospitalisation which forces even the best practitioners into doing bad general medicine . . . Any fee-for-service system would be a hotbed of abuses. But at least it would allow good medicine to survive.'

Allbutt and Geiringer both saw good clinical standards and effective medical care as inextricably bound with fee-earning autonomy. This was a reality only to the small minority of successful doctors in the carriage trade. They viewed medicine from above, from teaching hospital consultancy, and from general practice in affluent residential areas or market towns. They saw that rich doctors with rich patients had the training, staff, equipment and above all the time to take trouble with their patients, while poor doctors with poor patients were by circumstances forced to accept conveyor-belt methods that violated both medical science and the better customs of teaching hospital medicine. Their natural strategy for progress was a downward spread of fee-earning practice throughout the population, gradually displacing the ugly reality of working class practice. How could they be any thing but hostile to demagogues who proposed to build a service for the whole nation on the cheap and nasty systems of care endured by the poor?

As for the poor doctors of poor people, there never was any question of counting corpuscles, performing bacteriological examinations, estimating chemical values of secretions, or of skill in the use of instruments of precision. Shaw (1911) described the effect of the squalid conditions of work endured by the contract GP and his patients: 'The only way in which [the GP] can preserve his self-respect is by forgetting all he ever learnt of science, and clinging to such help as he can give without cost merely by being less ignorant and more accustomed to sick-beds than his patients. Finally, he acquires a certain skill at nursing cases under poverty-stricken domestic conditions, just as women who have been trained as domestic servants in some huge institution with lifts, vacuum cleaners, electric lighting, steam heating, and machinery that turns the kitchen into a laboratory and engine-house combined, manage, when they are sent out into the world to drudge as general servants, to pick up their business in a new way, learning the slatternly habits and wretched makeshifts of homes where even bundles of kindling wood are luxuries to be anxiously economised.' Shaw did not exaggerate. A Glasgow slum GP observed in 1916 dealt with more than 70 patients in three hours; at the end, patients were being seen three at a time (Gilbert 1966). Acting as a locum in Ferndale, Rhondda, in 1960, I saw about 60 patients in the morning session, another 60 in the evening, and visited 25 patients at home. Most doctors qualifying before 1960 who have worked in industrial areas can quote similar experience. GPs sunk to this state had no independent ideology. They valued Oslerian professionalism not as a relevant frame for their own work, but as another world to which they, or more likely their sons, might one day escape. Publicly financed care at a civilized standard for the mass of the people was not a credible alternative,

and was not on offer from any of the big political parties. Their few private patients appeared to be the only hope of a secure future and of opportunity to practise good clinical medicine. They could be roused to the defence of Harley Street, because, though not their own, it seemed more relevant to their preferred image of themselves, and more politically credible, than an improved service for the mass of the people.

Origins of mass primary care

The origins of mass primary care in Britain long precede Lloyd George and his Act. In 1804 there were already about a million workers organized for mutual aid in Friendly Societies to provide cash benefits during sickness and to meet the costs of burial. Doctors became involved primarily to legitimize access to benefit, and only secondly to give treatment. By 1900 the Friendly Societies had seven million members (about half the working population) and big insurance companies were moving into the market. The majority of GPs, who had no wealthy patients, could not live off occasional fees for contingency care. Their only means to achieve a regular income was some form of fixed weekly payment per head, whether by organizing their own Clubs, by contract to employers for the care of industrial workers, or by contract to the Friendly Societies or Insurance Companies. This was the established pattern for collecting subscriptions, for certifying entitlement, and for distributing benefits. For Lloyd George 'It was not ideal, and not what he would have preferred, but it was there and in operation, and moreover it was a customary agency understood by the people' (Newman 1939).

Common sense is the eventual consequence of common experience, and the experience of most British GPs has from the beginning contradicted the assumptions of the Oslerian model. The despised and educationally unmentionable capitation system ensured the survival of primary generalists, while fee-earning in other countries encouraged their evolution into primary specialoids as opposed to secondary specialists (Abel-Smith 1976). British general practice became rooted in local communities with stable, registered populations, so that our GPs knew who were and who were not their patients, and were able to develop a longitudinal view of sickness and health. British general practice in the community became clearly distinct from specialist practice in hospitals and, for its own self-respect, was forced to develop its own definitions of professionalism through its own College of General Practitioners (Horder 1977). This definition at last recognized that GPs have a social role, distinct from their technical functions, which if not well adapted to the reality within which they operate, may nullify even the greatest clinical expertise. This definition values the quality of continuous care throughout a lifetime, in which the handling of contingencies, though no less important than before, becomes secondary to strategies longer in time and broader in scope. It accepts that patients cannot be understood in isolation from their home or working relationships, and that the data necessary for accurate and effective anticipatory care are incomparably broader than those we were taught in the veterinary atmosphere traditional to medical schools.

Like any obsolete theory, the Oslerian model has been modified in successive attempts to reconcile it with reality. Our medical schools do not, dare not, ignore the minds and feelings of patients as once they did; the nature of medical science is beginning to be understood as experimental doubt, rather than cumulative fact. The study of illness, and even of health, outside hospitals has become a respectable subject in nearly all our medical schools, and priority for prevention is beginning to be conceded, in words if not in practice. But these concessions are cosmetic; the stonework of the professional fortress remains unchanged. Coronary care units are funded, programmes for community care and prevention of coronary disease are not, because the social machinery exists for implementing response to breakdown of health, but no such machinery exists for prevention of illness. Anticipatory care is generally available in inverse proportion to the pressure of symptom-demand, and since prevention is most needed where contingencies are most frequent, no serious preventive service is able to develop within our overstretched curative service. In the absence of planned care, salvage inevitably takes priority over maintenance. Health services evolving spontaneously in directions determined by the conflicting demands of clinicians, each claiming a share of

shrinking or stagnant resources, inevitably favour hospital-based salvage, mainly concentrated on acute or what eventually proves terminal illness, rather than on simpler, cheaper care of less advanced disease outside hospital.

Non-combatant strategies and non-strategic combat

The National Health Service is managed, not planned. Compared with most services abroad, that seems an unjust criticism; we do not have twice as many surgeons as we need, and we do have sufficient specialist anaesthetists, radiologists, and pathologists, in marked contrast to the United States, France, and the German Federal Republic, for example. But though we have talented doctors with the knowledge required to work out strategies for the control of coronary disease and stroke, diabetes, epilepsy, and chronic chest diseases (to take only my four examples), there is no way in which such strategies can be applied. The Area and District Community physicians who are supposed to develop strategy have little influence and no effective power over hospital consultants. If the NHS were expanding, they might gain some control simply by allowing cash to flow in preferred directions, but in present famine conditions, our community physicians are helpless spectators of the survival of the fittest. Over primary care, the foundation of the entire service, they have not even nominal control.

Unable to apply their strategies, and cut off from clinical medicine, our community physicians advance rhetorical solutions detached from social reality. Rose (1981), for example, argues that '... we may estimate that all the life-saving benefits achieved by current antihypertensive treatment might be equalled by a downward shift of the whole blood-pressure distribution in the population by a mere 2-3 mmHg'. He prefaces his argument with a speculative assumption: 'Supposing that some dietary measure, such as moderation of salt intake, were able to lower the whole blood pressure distribution ...' Well, let us suppose just that, while reminding ourselves that so far the evidence in favour of that hypothesis has more holes than a colander: how does he propose to bring about this mass change in behaviour? Here the argument loses credibility. Using the example of the dramatic and unique decline of smoking in British doctors, he asserts, without any evidence, that 'the motivation has probably not been the intellectual argument that in the end some obtain health benefits: it has been social pressure. Being a smoking doctor is uncomfortable these days, for your colleagues either pity you or despise you. Not smoking may be easier. Social pressure brings immediate rewards for those who conform.' But how can such mass social pressure begin, other than through 'intellectual argument'? Surely doctors have behaved more rationally because they know more. Conformity becomes an ally only after you are winning: at the beginning where most of the people are now at, passivity, fatalism, and capitulation are our principal enemies, not our friends, and rational dialogue with the people, individually and collectively, cannot be evaded.

If effective contact is not made with the population, all strategies either remain an abstraction, or become dictatorial benevolence. You cannot simply change the tapwater, applying veterinary measures to a human problem. The zealots of the Pure Water Society defeated a rational policy on fluoridation by arguing, explaining, writing, lobbying, and leafletting the general public with about a hundred times as much energy and persistence as our medical experts. Scientific truth cannot speak for itself without advocates. If we are serious about changing behaviour in directions that conserve health, we must use every available resource. Surely our existing doctors and nurses, to whom people turn when in trouble, could and should explain and personalize preventive health strategies. To ignore this resource, or assume that it cannot be used, is like building a house from the roof downward, ignoring the first rule of real politics: start from where you are, with the people you have.

Where we are, and the people we have

Well, where are we, and whom do we have? If we want to control arterial disease, few across-the-board preventive measures are as yet justified on firm present evidence. In order of priority, these are: abolition of cigarette smoking: control of blood pressure sustained

180/105 by drugs, and $\geq 160/95$ by weight control; maintenance of optimal body weight (metric weight not more than 25 times metric height squared) and, on a nice balance of evidence, physical exercise. Evidence that reduction in dietary animal fat can reduce coronary risk is convincing, but since attainment of ideal weight is rarely sought with a high fat diet, complex dietary advice beyond calorie restriction is probably not an effective additional preventive task. Claims for the effectiveness of small reductions in dietary sodium that might be readily attainable are frankly speculative; present evidence certainly does not justify either mass or personal intervention except on a pilot scale. If we take responsibility for preventive work only of proven value, we shall have our hands full enough, and perhaps avoid the absurd swings of fashion which have discredited doctors' orders in the past.

Any preventive work we do must be added to the ordinary patient-demand facing us each day, which is not only unavoidable, but can also be our chief means of access to the population for preventive and educational work. As health improves, primary consultations contain less gross pathology, and more minor deviations from health. Roughly two-thirds of any population consult a primary doctor at least once a year; this appears to be a constant proportion in industrialized cultures, regardless of care system (Anderson 1972), and may persist as custom, despite diminishing gross disease. Doctors have a choice of two strategies: to retain the Oslerian model by delegating to intermediate personnel the decisions of first contact, so that they can concentrate on the gross pathology appropriate to their skills; or they can retain responsibility for first contact, and accept inevitably increasing minor presenting pathology as a means of contact with people at risk, whose wants are a poor guide to their needs. In this second strategy, paramedical staff would be used to implement the extended, labour-intensive monitoring tasks required for preventive and anticipatory care. GPs and community nurses have authority and accessibility which could make them effective teachers as well as care providers for local populations. By derivation, the word 'doctor' means 'teacher'. The Oslerian doctor is fascinated by the processes but not, as a rule, by the causes of disease; he is bored by health, and communicates with his peers rather than his public. The new doctors we need must reverse each of these features. They must hate the processes of disease, with an informed, precise, and effective hatred, that can motivate large investments of time and work, in organization as well as face-to-face consultation, for small returns.

Rose (1978) calculated that, in a screened population aged 35–64, a GP would have to devote 35 patient-years to the control of high blood pressure to prevent one stroke. If that sounds discouraging, try expressing it as the care of 30 patients for one year; either way, it may appear to offer fewer instant satisfactions than the management of acute potentially lethal disease, perhaps because it demands skills that have hitherto had to be self-taught, and leaves unused many of the skills imparted by our present medical schools. But are we not glad to be dealing with a less sick population? Real conservation of health will require more work, more listening and teaching, more patience, more friendliness, more devoted work within communities. These skills and attitudes can be learned and taught, and are beginning to penetrate our medical schools, but they are not central to teaching because they are not imagined as central to the future work of doctors. For doctors at least, most of the teaching of this kind has had to be organized at postgraduate level by GPs themselves, who are more aware of the inappropriateness of much undergraduate medical education. Simply to make a start, we have most of the health workers we need for mass prevention and anticipatory care already working in the community, but without planning, organization, or encouragement. Community physicians can elaborate strategies to their hearts' content but cannot apply them in combat: and our GPs and community nurses, immersed in lifetimes of exhausting hand-to-hand combat, organize themselves chiefly for coping with demand rather than for altering the content of supply. Between the impotent strategists of community medicine, and the cynical and exhausted infantry of primary care, stand the hospitals, citadels of Oslerian professionalism, by definition concerned with salvage more than maintenance or prevention. Trained in a hospital ideology unrelated to their needs, and never having worked together,

strategists and combatants have little confidence in themselves and less in one another. Both need new ways of thinking which can develop only through new ways of working, requiring not a change of heart, but a change of structure.

A new structure for primary care

We already have important parts of the structure we need. Specialists work only from hospital, and only through referral from community generalists. General practitioners have a long-term commitment to neighbourhoods, without incentives to spurious specialization. Every practice has a registered population, whose names, ages, and addresses are known: and these populations are relatively stable, with an annual turnover between 5% and 25%. Hospital specialist staff and GPs are distributed broadly in line with the distribution of population. Elements of sectorization are already present; district general hospitals are related upward to special hospitals, and downward to neighbourhood doctors in defined catchment areas. In all these respects our services are more rational by an order of magnitude, than those in developed countries with fee-earning practice.

The change I propose is to make GP groups responsible for the general public health of their neighbourhoods as well as for personal care. By public health I do not mean environmental control or drains, but the health of the public. The primary care team, as well as retaining responsibility for response to presented symptoms, would be involved in active search for unmet need, in screening for preventable disease, in planning the continuing care of chronic disease, and in both collecting local morbidity, mortality, and risk factor data and making these available in intelligible form to the local population on an annual basis.

The tasks of prevention, data collection, and to a large extent of continuing care of chronic disease, are predictable and limitable, unlike the unplanned response to contingencies hitherto regarded as the main content of the general practice. These tasks could therefore be delegated to an expanded team, including people with social rather than technical skills, as in the present home-help service. Medical care in the community is and will remain labour-intensive. GPs and community nurses know their local populations well, and know where to find unused motivation, integrity and intelligence. To return to anything approaching full employment, our country must create about 5 million jobs during the next five years. Many of these could be in these expanded primary care teams.

Public investment in general practice implies public accountability. We have to be answerable to someone: why not to our patients? (Wilson 1977). The GP's list consists of names and addresses on a Family Practitioner Committee computer file. It could serve as a list for circulation of an annual report on neighbourhood health, and as a list of voters at an annual patients' meeting. Experience of patient participation groups (Pritchard 1981) shows that they release constructive initiative rather than destructive criticism.

Would GPs take up the challenge of neighbourhood public health? If the structure were there, some would and some would not; without it nobody can. We already have a situation in which some practices offer 24-hour care, others do not; some offer comprehensive contraceptive support, others do not; some undertake their own antenatal and well-baby clinics, others do not; some teach, others do not. With realistic payment for time spent, the options are there, and rising public expectations ensure that increasingly they will be adopted. The neighbourhood public health function could be developed in the same way, starting from where we are with the people we have.

Of course there are difficulties. Practices would need to become less dispersed, more neighbourhood-centred; salaried service, though probably not essential, would make it easier to integrate the whole primary care team in these new responsibilities; and the ways in which District Community Physicians would relate to the neighbourhood teams could, I suspect, be discovered only in practice. But the important thing is to make a start, with confidence that we are entering times that will become right for a bold turn outward, to a public we have hitherto recognized only as patients, who are our only dependable allies in struggle for a health service capable of implementing medical science on a mass rather than a token scale. Times of crisis

become times of legislative change. A century ago we achieved status with one social alliance, and the social perceptions it implied; it has impeded medical science ever since. With a different alliance, and a different perception, we could now achieve effectiveness; the choice is ours.

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